



GATES LEARJET CORPORATION

maintenance manual

CHAPTER

4

AIRWORTHINESS LIMITATIONS

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Chapter Section Subject	<u>Page</u>	<u>Date</u>
4-Title		
*4-List of Effective Pages	1	Jul 16/84
*4-Contents	1	Jul 16/84
*4-00-00	1	Jul 16/84
*4-00-01	1	Jul 16/84
*4-00-01	2	Jul 16/84
*4-00-01	3	Jul 16/84
*4-00-01	4	Jul 16/84

Insert Latest Revised Pages; Destroy Superseded or Deleted Pages.

*Asterisk indicates pages revised, added, or deleted by current revision.

The portion of the text affected by the current revision is indicated by a vertical line in the outer margin of the page.

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SECRET

Gates Learjet Corporation
maintenance manual

<u>Subject</u>	<u>Chapter Section Subject</u>	<u>Page</u>
AIRWORTHINESS LIMITATIONS	4-00-00	
General	4-00-00	1
AIRWORTHINESS LIMITATIONS - DESCRIPTION AND OPERATION		
General	4-00-01	1
Replacement Items	4-00-01	1

Gates Learjet Corporation
maintenance manual

AIRWORTHINESS LIMITATIONS - GENERAL

1. General

- A. The Airworthiness Limitations Section reflects items in Gates Learjet Corporation FAA Approved Report 25-S47 as stated on the Type Certificate Data Sheet.
- B. This chapter contains those "life limited" items which, at the time of certification, would have prevented certification had the limits not been established.
- C. It is intended that these Replacement Items be accomplished concurrently with the inspection interval which most nearly coincides with the replacement interval.
- D. Refer to Chapter 5 (5-10-04) for other replacement items.

Gates Learjet Corporation
maintenance manual

AIRWORTHINESS LIMITATIONS - DESCRIPTION AND OPERATION

1. General

- A. The following items must be replaced at the time interval specified.
- B. All intervals are in hours unless otherwise indicated.

2. Replacement Items

SYSTEM AND COMPONENT	INTERVAL
<u>Propulsion</u>	
Engine Yoke Assembly (2351038) (Engine mounting pad, support tube assembly and bolt (2351032)	20,000
<u>Flight Controls</u>	
Horizontal Stabilizer Installation	
NAS464P6 Bolt - Actuator Attach	7,200
Hinge Pin (2331028)	20,000
Elevator Installation (2334001), torque tube, bellcranks, and dual push-pull tubes	20,000
Elevator Hinge Installations (2332019, 2332018 & 2332013) attached to horizontal stabilizer	20,000
Wing Flap Installation	
Flap Assembly (2325010)	19,300
(Note: 2625010 assemblies not life limited)	
Inboard and Outboard Track Attach Castings (2625023, 2625024) (Ref. Note 4)	20,000
Outboard Flap Track Support (2322512-3 & -4) (Machined from bar stock)	11,900
Outboard Flap Track Assembly (2325022)	20,000
Inboard Flap Track Assembly (2325022)	20,000
Nose Roller Tracks (2322511-7 & -27; 2322512-7 & -13)	20,000

Gates Learjet Corporation

maintenance manual

SYSTEM AND COMPONENT	INTERVAL
Aileron Installation	
Aileron Surface, Hinges, and Hinge Support (2324027)	20,000
Aileron Actuator	20,000
2324510 Support Assy Bearing	
2324511 Yoke Assy	
2324512, 2324517 Clevis	
2324513 Pulley Assy-Aileron Drive	
Aileron Drive Yoke Bolt (NAS 1304-34H, NAS 1104-38D or NAS 464P4A33 and AN 320-4 Nut)	1,200
Center Hinge Bolt (AN4H12A or AN4H13A)	1,200
Rudder Installation (Surface, Hinges, and Hinge Support)	15,000
Control System Cables	
Aileron (See Note 3)	2,400
Elevator (See Note 3)	2,400
<u>Landing Gear</u>	
Nose Gear Strut and Actuator (Hard surface runway landings only)	20,000 Landings
Main Gear Strut (with Cylinder Assembly P/N 2341101) and Actuator, hard surface landings only	9,000 Landings
Main Gear Strut (with Cylinder Assembly P/N 2441011) and Actuator, hard surface landings only	12,000 Landings
Main Gear Strut (with Cylinder Assembly P/N 2441011 and Actuator, sod runway landings <u>only</u> . (Aircraft approved for unpaved runway operations.)	1,800 Landings
Nose Gear Strut and Actuator (sod runway landings <u>only</u>) (Aircraft equipped for unpaved runway operations.)	5,000 Landings
Main Gear Strut (with Cylinder Assembly P/N 2441011) and Actuator, combination of hard surface runway landings and sod runway landings (Aircraft approved for unpaved runway operation).	(See Note 1)

Gates Learjet Corporation
maintenance manual

SYSTEM AND COMPONENT

INTERVAL

Nose Gear Strut and Actuator (Combination of hard surface runway landings and sod runway landings)
(Aircraft approved for unpaved runway operations)

(See Note 2)

Air Conditioning

Air Conditioner Compressor Fan Blade (P/N 6608059-4 with steel stamp "A" near hub)	1,200
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Air Conditioner Compressor Fan Blade (P/N 6608059-5)	2,400
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NOTES:

1. To compute total number of landings, apply the following formula:

$$(4 \times L_{\text{SOD}}) + (1 \times L_{\text{HARD}}) \leq 12,000 \text{ landings}$$

The formula reads "four times the number of sod runway landings plus one times the number of hard surface runway landings shall be equal to, or less than 12,000 landings."

EXAMPLE:

Total number of sod runway landings = 1500

Total number of hard surface runway landings = 5000

$$(4 \times 1500) + (1 \times 5000) = 6000 + 5000 = 11,000 \text{ computed total landings}$$

In this case there are 11,000 computed total landings. This means that there are only 1,000 computed total landings allowed before the strut must be replaced.

2. To compute total number of landings, apply the following formula:

$$(4 \times L_{\text{SOD}}) + (1 \times L_{\text{HARD}}) \leq 20,000 \text{ landings}$$

The formula reads "four times the number of sod runway landings plus one times the number of hard surface runway landings shall be equal to, or less than 20,000 landings."

Gates Learjet Corporation
maintenance manual

EXAMPLE:

Total number of sod runway landings = 1500

Total number of hard surface runway landings = 5000

$(4 \times 1500) + (1 \times 5000) = 6000 + 5000 = 11,000$ computed total landings

In this case there are 11,000 computed total landings. This means that there are 9,000 more computed landings allowed before the strut must be replaced.

3. Replacement time applies to primary Aileron and Elevator Control Systems only. Aileron (roll) and Elevator (pitch) servo cables are replaced as required. (Refer to Chapter 27 for control cable damage limits.)
4. Flap Track Attach Castings (P/N 2625023 and 2625024) are riveted to Wing Flap Assembly (P/N 2625010) which has no time life limit.
5. Not a requirement of Gates Learjet Corporation FAA Approved Report 25-S47.